AMENDMENTS

Please amend the claims as indicated below.

Claims 1-19. (Cancelled)

- 20. (Original) A bandgap reference circuit comprising:
 - a diode having an anode and a cathode;
 - a first resistor and a second resistor, where the first resistor is coupled between the anode and the second resistor;
 - a proportional to absolute temperature (PTAT) current source for providing a

 PTAT current, where the PTAT current source is coupled to a node
 between the first resistor and the second resistor;
 - where a reference voltage is generated at the node between the first resistor and the second resistor.
- 21. (Original) The bandgap reference circuit of claim 20, further comprising: a bias current source for providing a bias current to the diode.
- 22. (Original) The bandgap reference circuit of claim 20, where the second resistor couples between the first resistor and ground.
- 23. (Original) The bandgap reference circuit of claim 20, where the emitter is coupled to ground.
- 24. (Original) The bandgap reference circuit of claim 20, where the reference voltage remains substantially constant in response to variations in temperature.



- 25. (New) A bandgap reference circuit comprising:
 - a first transistor having an emitter, a collector, and a base, wherein the base is coupled to the collector, and wherein the emitter is coupled to ground;
 - a first resistor and a second resistor, wherein the first resistor is coupled between the collector and the second resistor, and wherein the second resistor is coupled between the first resistor and ground;
 - a proportional to absolute temperature (PTAT) current source for providing a PTAT current, wherein the PTAT current source is coupled to a node between the first resistor and the second resistor;
 - wherein a reference voltage is generated at the node between the first resistor and the second resistor.
- 26. (New) The bandgap reference circuit of claim 25, further comprising a bias current source for providing a bias current to the transistor.
- 27. (New) The bandgap reference circuit of claim 25, where the reference voltage remains substantially constant in response to variations in temperature.
- 28. (New) The bandgap reference circuit of claim 25, where the transistor is a bipolar transistor.

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- 29. (New) The bandgap reference circuit of claim 25, further comprising a second transistor and a third transistor coupled to each other, wherein a collector of the second transistor is coupled to the collector of the first transistor.
- 30. (New) The bandgap reference circuit of claim 29, where emitters of the second and third transistor are coupled to each other.

- 31. (New) The bandgap reference circuit of claim 30, where a collector of the third transistor is coupled to a node between the first and second resistors.
- 32. (New) The bandgap reference circuit of claim 31, further comprising a fourth and a fifth transistor, wherein bases of the second, third, fourth, and fifth transistors are coupled to each other.
- 33. (New) The bandgap reference circuit of claim 32, where the emitters of the second and third transistors are coupled to emitters of the fourth and fifth transistors.
- 34. (New) The bandgap reference circuit of claim 33, further comprising a sixth and a seventh transistor, wherein a collector of the fourth transistor is coupled to a collector of the sixth transistor, and wherein a collector of the fifth transistor is coupled to a collector of the seventh transistor.
- 35. (New) The bandgap reference circuit of claim 34, where bases of the sixth and seventh transistors are coupled to each other.
- 36. (New) The bandgap reference circuit of claim 35, where an emitter of the sixth transistor is coupled to ground.
- 37. (New) The bandgap reference circuit of claim 36, where an emitter of the seventh transistor is coupled to a third resistor.
- 38. (New) The bandgap reference circuit of claim 37, where the third resistor is coupled to ground.